

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 10, 2018

VIA MAIL AND EMAIL

Mr. Jack Horne
Regulatory Affairs and Compliance
Southern California Edison
2244 Walnut Grove Avenue
Rosemead, CA 91770

SUBJECT: Data Request No. 18 for the Southern California Edison Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Dear Mr. Horne:

As the California Public Utilities Commission (CPUC) proceeds with our environmental review for Southern California Edison (SCE)'s Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project (Project), we have identified additional information required in order to adequately conduct the CEQA review. Please provide the information requested below (Data Request #18) by August 24, 2018. Please submit your response in hardcopy and electronic format to me and also directly to our environmental consultant, Environmental Science Associates (ESA), at the physical and e-mail addresses noted below. If you have any questions please direct them to me as soon as possible.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Peterson".

Robert Peterson
CPUC CEQA Project Manager
Energy Division
300 Capitol Mall, Suite 418
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Robert.Peterson@cpuc.ca.gov

ESA
Attn: Matthew Fagundes
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Suite 200
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mfagundes@esassoc.com

Data Request No. 18

Circle City Substation and Mira Loma-Jefferson Subtransmission Line Project

Request for Supporting Data regarding SCE's July 20th Draft EIR Comments

1. The first complete paragraph on page 5 in Section IV, Part B of SCE's comments includes the following statements:

"Unlike a substation where multiple substation sources (i.e., subtransmission lines) provide a constant source of power to the substation allowing it to be available all of the time (increasing reliability and operational flexibility), batteries are unable to alleviate electrical demands outside of the immediate circuits they are connected to, and the existing substation which serves those circuits, nor are they available all of the time. Further, because batteries do not have their own source of constant independent power (e.g., 66 kV source line and 66/12 kV transformers), they are unable to operate and serve load separately from the electrical facilities surrounding them; rather their function would be to supplement existing electrical facilities. These shortcomings will become especially important after 2031, or once it is determined that the battery solution can no longer support the ENA. Accordingly, it is imperative that a substation alternative be included in order to provide the operational flexibility SCE needs to balance electrical loads among multiple substations in the ENA, and enhance the reliability of electrical service to SCE's customers."

Please provide a description of SCE's standard practices for transferring load between distribution substations within a distribution planning area for reliability purposes. In particular, please indicate how much "headroom" (in MW or MVA, depending on how that capacity is measured) in the distribution planning area SCE plans for for load switching from other substations in the same planning area. If these numbers are based on targeted Customer Average Interruption Duration Index (CAIDI), System Average Interruption Duration Index (SAIDI), or System Average Interruption Frequency Index (SAIFI) levels, please include them explicitly. We understand these planning exercises are done based on peak load numbers and do not include consideration of the varying load cycle, yet the comment suggests that the inability of the battery storage facility to provide continuous voltage to the grid reduces its operational flexibility. The response should indicate how the potential storage resource associated with Alternative D1, which would directly reduce the peak load at Chase Substation, would be handled differently for transferring peak load and off-peak load compared to Circle City Substation from a reliability planning perspective.

2. Section IV, Part B of the SCE Draft EIR comments indicate that the proposed Project would expose customers to less risk compared to the Alternative D1 battery storage facility because of SCE's limited operational experience with batteries. Please quantify the battery-associated risk in MW over time (e.g., 5 MW of battery risk by 2026, 5 additional MW of battery risk by 2028) and detail how long SCE expects it would take SCE to obtain sufficient operational experience with batteries relative to a staged battery rollout under Alternative D1 (e.g. of increments of 5 MW batteries over time based on load growth). Please indicate if SCE expects that its risk due to limited battery operational experience would be "all or nothing" on a battery life by battery life basis, or if the risk would be reduced over time within the operational life of an individual battery.
3. Provide a comprehensive list (a table) of battery storage facilities that are both owned and operated by SCE and that connect to SCE's system. In the list, provide columns for facility size (MW and MWh), battery type, location (City and County in table and GIS data separately), ultimate build out

size, limitation on expansion (if any), cost to install, date put into operation, ownership, and a summary of maintenance issues. Also include rows for procurements already proposed to the CPUC or already approved, but “not yet built.” Include all the same details in the table for these “not yet built” systems using best available estimates and assumptions at this time. Also, indicate whether or not the procurement was already approved and when the proposal was submitted for approval. If any of this request is unclear, first, submit a detailed or at least partially completed draft table and full package of GIS data, and second, request feedback and a meeting with CPUC to discuss the draft submittal package.

4. Section IV, Part B of the SCE Draft EIR comments state: "SCE's Proposed Project presents a more cost-effective solution for SCE's customers than the battery alternative endorsed by the ESA." We are trying to better understand how these costs vary over time. To support this statement, please quantify how SCE incorporated relative costs over time with regard to battery replacement vs. the cost of a substation. Please explicitly cover SCE's cost of capital and the present value revenue requirement.
5. Page A1-40 of SCE's comments on the Draft EIR recommend changing the costs for Alternatives C1 and D1 identified in Table 5-3 from \$100 to \$120 million to \$120 to \$150 million. The cost amounts presented in Draft EIR Table 5-3 are based on the direct costs with contingencies from SCE's response to CPUC Data Request 16, Question 10 (Attachment 1 of 1) with battery revenue amounts identified in SCE's response to CPUC Data Request 16, Question 12 (Attachment 2 of 2), subtracted from the total amounts, plus an addition of \$1.7 million to represent the undergrounding that would be associated with Alternative C1. Please include an analysis of how the recommended revised costs were calculated, including how energy revenues that would result from the battery are handled.
6. In addition, it appears that the total cost for the proposed Project identified in CPUC Data Request 16, Question 10 (Attachment 1 of 1) does not include the cost that would be associated with construction of the Pedley Sources Lines (referred to as Corona-Circle under the Subtransmission heading). Please provide the costs for that component of the proposed Project.

Request for Clarification regarding Other Draft EIR Comments

7. Clarify whether SCE would install a tan colored wall around the battery storage facility site associated with Alternative D1 similar to that SCE has proposed for Circle City Substation site.
8. The City of Chino has expressed concern that existing and future access to property owners in the City along Hellman Avenue could be affected by the Project. Describe where poles and infrastructure along Hellman Avenue would be located along the west side of Hellman relative to the existing poles that would be replaced if new poles are determined to be required.
9. Provide details how the underground vaults would be designed to be able to be lowered within roadways. Describe how any underground vaults within Hellman Avenue that would be associated with converting the existing Archibald-Chino-Corona 66 kV line crossing to underground would be sited to avoid placing the vault(s) outside of future driveways, streets, landscaped areas, etc., in order to not impact future developments and provide information showing the specific details of how this underground relocation would affect the existing property frontage on the west side of Hellman Avenue.